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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,571	04/30/2001	Yves Schabes	TGS-00201	5344

7590 05/18/2005

ATTORNEY/AGENT

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EXAMINER

CHOJNACKI, MELLISSA M

ART UNIT	PAPER NUMBER
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2164

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/845,571

Applicant(s)

SCHABES ET AL.

Examiner

Mellissa M. Chojnacki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2005.
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 32-46 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5 and 32-46 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In response to communications filed on February 22, 2005, claim 1 has been amended, claims 6-31 cancelled and new claims 32-46 have been added per applicant request. Therefore, claims 1-5 and 32-46 are presently pending in this application.

Claim Objections

2. Claims 35-36 are objected to because of the following informalities:

Claim 35 is missing a colon (:) in line 1. A colon should be added after "the steps of". Correction is required.

Claim 36 is objected to because it is dependent from objected to independent claim 35. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5 and 32-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (U.S. Patent No. 6,665,666) in view of Brown et al. (U.S. Patent No. 5,477,451) (hereafter Brown et al. '451).

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As to claim 1, Brown et al. teaches a method of answering a question based on information stored on a computer readable medium (See abstract; column 1, lines 22-27) comprising the steps of

receiving a question (See column 3, lines 47-60);

parsing the question to obtain an analyzed question (See column 5, lines 7-10; column 11, lines 61-65);

matching the analyzed question to a set of predetermined question patterns to obtain one or more matched question patterns (See column 2, lines 39-43; column 3, lines 66-67; column 4, lines 1-7);

generating partially unspecified queries corresponding to the partially unspecified statements (See column 3, lines 56-66); and

obtaining answers by matching the partially unspecified queries to stored information (See abstract; column 3, lines 38-67; column 4, lines 1-13).

Brown et al. does not teach transforming the one or more matched question patterns into one or more partially unspecified statements the transforming including matching each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations describe syntactic variations of one or more terms included in the question.

Brown et al. '451 teaches a method and system for natural language translation (See abstract), in which he teaches transforming the one or more

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matched question patterns into one or more partially unspecified statements the transforming including matching each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations describe syntactic variations of one or more terms included in the question (See column 3, lines 22-36; column 8, lines 37-46; column 16, lines 36-50; column 19, lines 55-67; column 20, lines 1-23; column 26, lines 41-67; column 27, lines 1-16).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Brown et al., to include transforming the one or more matched question patterns into one or more partially unspecified statements the transforming including matching each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations describe syntactic variations of one or more terms included in the question.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Brown et al., by the teachings of Brown et al. '451 because transforming the one or more matched question patterns into one or more partially unspecified statements the transforming including matching each of the matched question patterns to a set of

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predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations describe syntactic variations of one or more terms included in the question would improve the system and method for determining specific answers from queries of text (See Brown et al., column 3, lines 37-40).

As to claims 2 and 38, Brown et al. as modified, teaches transforming matched question patterns into one or more partially unspecified statements using syntactic frames (See Brown et al. '451, column 21, lines 15-41).

As to claims 3 and 39, Brown et al. as modified, teaches collecting answers from matching the partially unspecified queries across a plurality of documents in the stored information (See Brown et al., abstract; column 3, lines 48-60).

As to claims 4 and 40, Brown et al. as modified, teaches ranking each obtained answer according to its frequency of matching (See Brown et al., column 9, lines 4-10; column 13, lines 11-17).

As to claims 5 and 41, Brown et al. as modified, teaches wherein the stored information comprises a set of documents and an index identifying which documents within the set of documents contain terms or groups of terms

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answering the partially unspecified queries (See Brown et al., abstract; column 1, lines 38-52; column 4, lines 50-53; column 5, lines 33-35, lines 50-57).

As to claims 32, 36, 42 and 46, Brown et al. as modified, teaches wherein the partially unspecified statements include at least one syntactic or morphological restriction (See Brown et al. '451, column 3, lines 22-36; column 8, lines 37-46; column 19, lines 55-67; column 20, lines 1-23; column 26, lines 41-67; column 27, lines 1-16).

As to claims 33 and 43, Brown et al. as modified, teaches wherein generating the partially unspecified queries further includes: replacing a generic syntactic or morphological category with one or more corresponding elements from the question (See Brown et al. '451, column 3, lines 22-36; column 8, lines 37-46; column 13, lines 14-33; column 16, lines 36-50; column 19, lines 55-67; column 20, lines 1-23; column 26, lines 41-67; column 27, lines 1-16); wherein the code that generates the partially unspecified queries further includes code that: replaces a generic syntactic or morphological category with one or more corresponding elements from the question (See Brown et al. '451, column 3, lines 22-36; column 8, lines 37-46; column 13, lines 14-33; column 16, lines 36-50; column 19, lines 55-67; column 20, lines 1-23; column 26, lines 41-67; column 27, lines 1-16).

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As to claims 34 and 44, Brown et al. as modified, teaches wherein a first of the partially unspecified statements is transformed into more than one partially unspecified queries in accordance with a mapping of a question word to more than one corresponding partially unspecified term (See Brown et al., column 3, lines 48-60; column 4, lines 1-13; column 9, lines 38-40); wherein a first of the partially unspecified statements is transformed into more than one partially unspecified queries in accordance with a mapping of a question word to more than one corresponding partially unspecified term (See Brown et al., column 3, lines 48-60; column 4, lines 1-13; column 9, lines 38-40).

As to claim 35, Brown et al. teaches a method of answering a question (See abstract; column 1, lines 22-27) comprising the steps of:

receiving a question (See column 3, lines 47-60);
parsing the question to obtain an analyzed question (See column 5, lines 7-10; column 11, lines 61-65);

matching the analyzed question to a set of predetermined question patterns to obtain one or more matched question patterns (See column 2, lines 39-43; column 3, lines 66-67; column 4, lines 1-7);

generating partially unspecified queries corresponding to the partially unspecified statements (See column 3, lines 56-66); and
obtaining answers by matching the partially unspecified queries to stored information (See abstract; column 3, lines 38-67; column 4, lines 1-13).

Brown et al. does not teach transforming the one or more matched question patterns into one or more partially unspecified statements, the transforming including matching each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations represent affirmative statement patterns corresponding to the one or more matched question patterns.

Brown et al. '451 teaches a method and system for natural language translation (See abstract), in which he teaches transforming the one or more matched question patterns into one or more partially unspecified statements, the transforming including matching each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations represent affirmative statement patterns corresponding to the one or more matched question patterns (See column 3, lines 22-36; column 8, lines 37-46; column 16, lines 36-50; column 19, lines 55-67; column 20, lines 1-23; column 26, lines 41-67; column 27, lines 1-16).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Brown et al., to include transforming the one or more matched question patterns into one or more partially unspecified statements, the transforming including matching each of the

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matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations represent affirmative statement patterns corresponding to the one or more matched question patterns.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Brown et al., by the teachings of Brown et al. '451 because transforming the one or more matched question patterns into one or more partially unspecified statements, the transforming including matching each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations represent affirmative statement patterns corresponding to the one or more matched question patterns would improve the system and method for determining specific answers from queries of text (See Brown et al., column 3, lines 37-40).

As to claim 37, Brown et al. teaches a computer program product for answering a question comprising code (See abstract; column 1, lines 22-27) that:

receives a question (See column 3, lines 47-60);

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parses the question to obtain an analyzed question (See column 5, lines 7-10; column 11, lines 61-65);

matches the analyzed question to a set of predetermined question patterns to obtain one or more matched question patterns (See column 2, lines 39-43; column 3, lines 66-67; column 4, lines 1-7);

generates partially unspecified queries corresponding to the partially unspecified statements (See column 3, lines 56-66); and obtains answers by matching the partially unspecified queries to stored information (See abstract; column 3, lines 38-67; column 4, lines 1-13).

Brown et al. does not teach transforms the one or more matched question patterns into one or more partially unspecified statements, the code that transforms including code that matches each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations describe syntactic variations of one or more terms included in the question.

Brown et al. '451 teaches a method and system for natural language translation (See abstract), in which he teaches transforms the one or more matched question patterns into one or more partially unspecified statements, the code that transforms including code that matches each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified

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statements is missing a portion corresponding to an answer and the predetermined transformations describe syntactic variations of one or more terms included in the question (See column 3, lines 22-36; column 8, lines 37-46; column 16, lines 36-50; column 19, lines 55-67; column 20, lines 1-23; column 26, lines 41-67; column 27, lines 1-16).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Brown et al., to include transforms the one or more matched question patterns into one or more partially unspecified statements, the code that transforms including code that matches each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations describe syntactic variations of one or more terms included in the question.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Brown et al., by the teachings of Brown et al. '451 because transforms the one or more matched question patterns into one or more partially unspecified statements, the code that transforms including code that matches each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations describe syntactic variations of one or more terms included in the

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question would improve the system and method for determining specific answers from queries of text (See Brown et al., column 3, lines 37-40).

As to claim 45, Brown et al. teaches a computer program product for answering a question based on information stored on a computer-readable medium (See abstract; column 1, lines 22-27) comprising code that:

receives a question (See column 3, lines 47-60);
parses the question to obtain an analyzed question (See column 5, lines 7-10; column 11, lines 61-65);

matches the analyzed question to a set of predetermined question patterns to obtain one or more matched question patterns (See column 2, lines 39-43; column 3, lines 66-67; column 4, lines 1-7);

transforms the one or more matched question patterns into one or more partially

generates partially unspecified queries corresponding to the partially unspecified statements (See column 3, lines 56-66); and
obtains answers by matching the partially unspecified queries to stored information (See abstract; column 3, lines 38-67; column 4, lines 1-13).

Brown et al. does not teach unspecified statements, the code that transforms including code that matches each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined

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transformations are affirmative statement patterns corresponding to the one or more matched question patterns.

Brown et al. '451 teaches a method and system for natural language translation (See abstract), in which he teaches unspecified statements, the code that transforms including code that matches each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations are affirmative statement patterns corresponding to the one or more matched question patterns (See column 3, lines 22-36; column 8, lines 37-46; column 16, lines 36-50; column 19, lines 55-67; column 20, lines 1-23; column 26, lines 41-67; column 27, lines 1-16).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have modified Brown et al., to include unspecified statements, the code that transforms including code that matches each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations are affirmative statement patterns corresponding to the one or more matched question patterns.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Brown et al., by the teachings

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of Brown et al. '451 because unspecified statements, the code that transforms including code that matches each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements, wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations are affirmative statement patterns corresponding to the one or more matched question patterns would improve the system and method for determining specific answers from queries of text (See Brown et al., column 3, lines 37-40).

Response to Arguments

5. Applicant's arguments filed on February 22, 2005, with respect to the rejected claims in view of the cited references have been considered but are moot in view of new amendments made to the claims.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory

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action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mellissa M. Chojnacki whose telephone number is (571) 272-4076. The examiner can normally be reached on 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (571) 272-4083. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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May 11, 2005

Mmc



SAM RIMELL
PRIMARY EXAMINER